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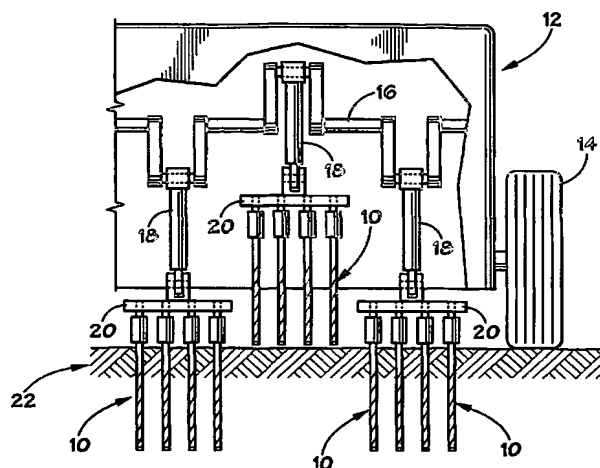
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(54) Title: METHOD AND APPARATUS FOR TURF AERIFICATION



(57) Abstract: A novel drill for the aerification of turf grasses is disclosed. The drill comprises a chuck and a fluted turf drill bit held by the chuck. The chuck includes a locking mechanism which permits the chuck to rotate freely about its longitudinal axis when loaded in compression (as when the drill is inserted into the ground) but which locks, preventing rotation, when the drill is loaded in tension (such as when the drill is withdrawn from the soil). The drill bit has a smooth upper section and a fluted lower section. The smooth section decreases the probability of entangling the turf in the drill bit with subsequent lifting of the turf when the drill is withdrawn. The tip of the drill bit is adapted to provide a torque to the drill bit during insertion into the ground. Thus, the bit spirals into the ground upon insertion, but locks upon removal, thereby permitting the flutes of the bit to cut a cylindrical hole in the ground while removing soil from the hole by retaining it in the space between the flutes. The drill of the present invention may be used in aerators previously limited to solid or hollow-core tines.

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